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Wooton Under Edge
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Gloucestershire
GL12 7DY

SATRA Ref: FLO0186356/1027/2/L
W/JAG – Issue 2

Report Date: 13 July 2010

Samples received: 7 July 2010

Contact: Chris Smith

TECHNICAL SERVICES REPORT

Subject: Testing of a sample referenced 'Natural Oiled' in accordance with BS 7976 part 2: 2002 - Pendulum testers method of operation and UK Slip resistance guidelines issue 3: 2005

Your reference:

Conditions of Issue:

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Report signed by: Jacqueline Glasspool
Position: Head of Department
Department: Furniture & Flooring

(Page 1 of 5)



TESTING OF NATURAL OILED IN ACCORDANCE WITH BS 7976 PART 2: 2002 AND IN ACCORDANCE WITH UK SLIP RESISTANCE GUIDELINES

As requested by The Solid Wood Flooring Company, SATRA has conducted an assessment of the slip resistance of a floor covering submitted, as detailed below.

SUMMARY

The sample referenced "Natural Oiled" has demonstrated a low slip potential under dry test conditions and a moderate slip potential when tested under wet surface conditions, when tested using BS 7976-2: 2002 and assessed in accordance with the UK Slip Resistance Group guidelines, Issue 3: November 2005.

SAMPLE SUBMITTED

Sample reference: Natural Oiled
Description: Engineered Wooden Plank
Intended application: Commercial Contract use

Appearance:



Date received: 7th July 2010
Conditioning commenced: 7th July 2010
Testing commenced: 12th July 2010
Testing completed: 12th July 2010
Testing conducted by: L. Whittington

TESTS CARRIED OUT

- BS 7976-2: 2002 Pendulum Testers, method of operation ⁽¹⁾
- Surface Roughness measurements (Rz) ⁽¹⁾⁽²⁾

Note(s):

(1) Testing has been conducted and the results have been assessed in accordance with the UK Slip Resistance Group Guidelines –Issue 3: 2005

(2) The surface roughness values have been taken from different areas on the specimens.

The Solid Wood Flooring Company
Job: FLO0186356/1027/2 – Issue 2
Date: 13 July 2010

Signed:



RESULTS

Table 1. BS 7976-2: 2002 Pendulum Testers, method of operation (Using Slider 96)

Sample	Condition	Direction of Test			Overall average slip measurement (PTV's)
		A	B	C	
Natural Oiled	Dry	66	66	67	66
	Wet (water)	27	29	30	29

Direction of Test



Table 2. Surface Roughness measurements (Rz) ⁽²⁾

Roughness measurement	1	2	3	4	5	6	7	8	9	10	Ave
RZ value	3.4	19.7	26.1	2.3	5.1	3.6	16.1	28.4	9.2	4.7	11.9

COMMENTS

BS 7976-2: 2002 (Slip Resistance)

The method of test is intended to assess the potential of slipping for people walking on a flooring material. A pendulum attached to a spring loaded foot fitted with a standard rubber slider referenced Slider 96 (formally known as Four S Rubber) is allowed to swing so the slider contacts a dry or wet test flooring over a set distance. The extent to which the pendulum fails to reach its release height on the over swing is determined as a measurement of the slip resistance. The procedure is carried out in three directions, in one principle direction, at 90° to this and at 45° to the principle direction.

The following table contains guidelines recommended by the UK Slip resistance group – Issue 3 2005.

Table 3. UK Slip Resistance Group Guidelines.

Slip potential	PTV
High slip potential	0-24
Moderate slip potential	25-35
Low slip potential	36+

The sample submitted demonstrated a moderate potential for slipping incidents when tested under wet test conditions and a low potential for slipping incidents when tested under dry surface conditions.

Surface Roughness Measurements (Rz)

During the assessment the surface roughness meter (Surtronic 3+) travelled across the surface of the floor covering at ten different areas. The surface roughness meter travels over a 4mm distance and measures the maximum trough to peak height in five 0.8 mm sections (rt1 to rt5); with the Rz roughness is the average of the 5 rt values.

The values achieved for surface roughness would suggest that the sample referenced “Natural Oiled” submitted for testing has a moderate slip potential in wet test conditions, as detailed in table 4 below.

Table 4. Surface Roughness Criterion. These values apply to water wet situations.

Slip potential	Rz value
High slip potential	Below 10 µm
Moderate slip potential	10 - 20 µm
Low slip potential	20 + µm

It is important to understand that the measurements undertaken should not be taken in isolation and that the pendulum test results take precedence when assessing slip potential.

‘In any complaint involving slip, the floor surface, the footwear and other environmental factors will all have an important bearing on slip resistance. It will be impossible to make either footwear or floorings slip resistant under all conditions which may be encountered in wear’.

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The laws of England shall govern all contracts and the parties submit to exclusive jurisdiction of the courts of England, unless otherwise agreed.

Issue Date: 1st October 2009

The Solid Wood Flooring Company
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Signed:


